

304 314 1/2 xw.049

Work Order ID 161643

161643

Page 1

Friday, May 19, 2017 11:38:54 AM

Item ID: D3589-21 Accept *N9000040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: Latch Guide
Start Date: 5/23/2017 Start Qty: 4.00 *4* Cust Item ID:
Required Date: 5/25/2017 Req'd Qty: 4.00 *4* Customer:
Reference: (P.A.)SCHEDULED/S

Approvals: Process Plan: PA ^{DAS} 21 9-89 Date: 2017/05/23 Tooling: Date: Run Start *NR1*
QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr								
D3589	C								

100 0.00

100

Hardinge

Hardinge CNC Lathe Small

Memo

1-TURN AS PER FOLIO F**** & DWG D3589

FOLIO REV: PA

DWG REV: C

2-DEBURR AS REQUIRED

0.44

110 0.00

110

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

DAS

45

9-89

2017-5-23

DAS

45

9-89

2017-5-23

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																	
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Work Order ID 161643

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161643

Page 2

Item ID: D3589-21 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Latch Guide
Start Date: 5/23/2017 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 5/25/2017 Req'd Qty: 4.00 ***4*** Customer:
Reference: (P.A.)SCHEDULED/S

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00							
120									
QC	Memo	0.00				4	0		DAS 44 9-89 17-05-24
Quality Control									
130	Identify as per dwg & Stock Location WAWA	0.00							
130									
Packaging	Memo	0.00				4	6		DAS 6 9-89 MAY 26 2017
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							17/5/30
Quality Control									

DAS
21
9-89 MAY 26 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
2AO 2A 08-0								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
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Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process	OTHER : _____							
Misidentified ☐	☐	Past Due								

Picklist Print

Page 1

Friday, May 19, 2017 11:38:54 AM

Work Order ID: 161643

161643

Parent Item: D3589-21

D3589-21

Parent Item Name: Latch Guide

Start Date: 5/23/2017

Required Date: 5/25/2017

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A 12.07.23 NEW ISSUE DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304TR0.500W.049		Purchased			No	100	f	42.6442	0.12	0.505263			

M304TR0 500W 049

**

304 RD Tube .500 x .049W

Location

Loc Qty

Loc Code

GA002

42.644158

M136846

1.17

M137091

2.92

M137169

9.179158

M137286

9.375

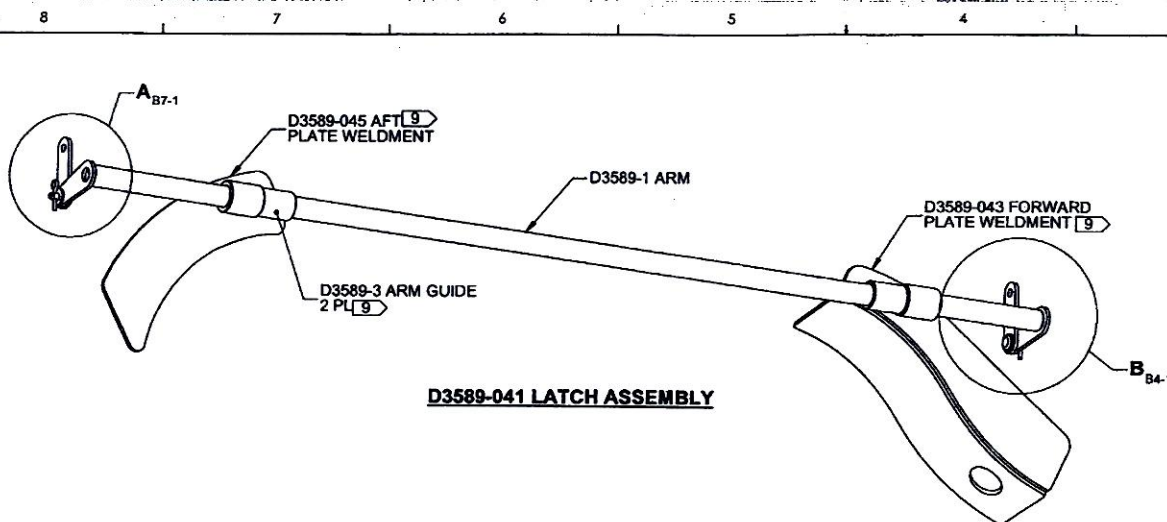
M137415

20

0.506

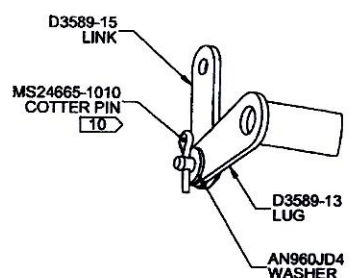
DAS
45
9-89

2017-5-23

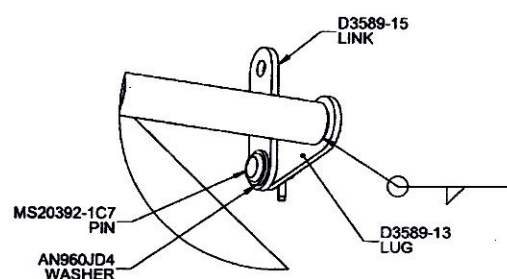


D3589-041 LATCH ASSEMBLY

ITEM	QTY. -041	P/N	DESCRIPTION
	X	D3589-041	LATCH ASSEMBLY
1	1	D3589-043	FORWARD PLATE WELDMENT
2	1	D3589-045	AFT PLATE WELDMENT
3	1	D3589-1	ARM
4	2	D3589-3	ARM GUIDE
5	2	D3589-13	LUG
6	2	D3589-15	LINK
7	4	AN960JD4	WASHER
8	2	MS20392-1C7	PIN
9	2	MS24665-1010	COTTER PIN



DETAIL A: LINK ASSEMBLY DETAIL D8-1
SCALE 2X
2 PL



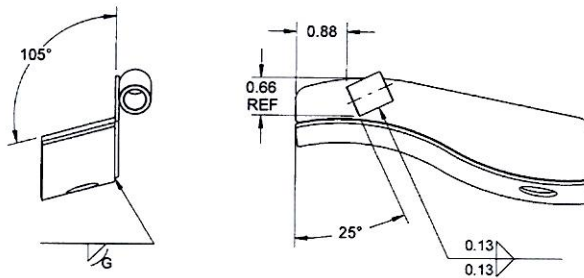
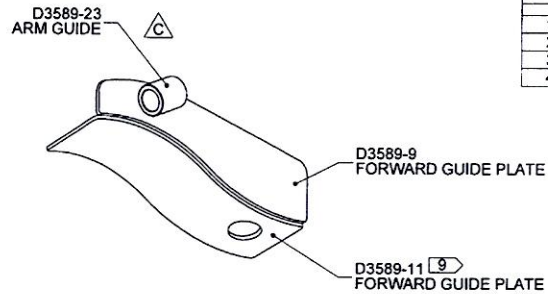
DETAIL B: WELDING AND LINK ASSEMBLY DETAIL C3-1
SCALE 2X
2 PL

- D3589-041 NOTES:**
- 1) MATERIAL: N/A
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3589-041" AND B/N "BXXXX" PER DART QSI 044 6.1 (FINE POINT PAINT MARKER)
 - 7) WEIGHT: 0.75 lbs
 - 8) WELDING: PER DART QSI 004 USING DT9033
 - 9) IDENTIFIED PARTS ARE LOOSE ON D3589-1 ARM
 - 10) INSTALL COTTER PIN IN ACCORDANCE WITH MS33540

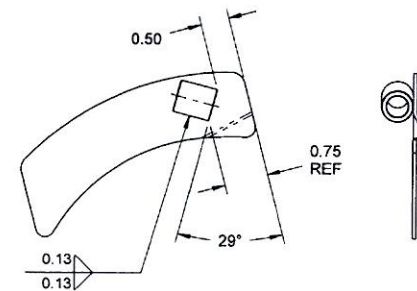
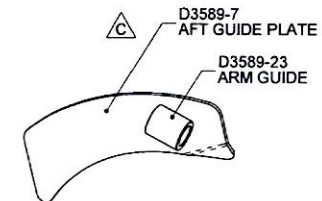
RELEASED
2012-07-16

C	REVISED D3589-5: 2.75 WAS 3.00 (ZN B6-4); ADDED D3589-21 (ZN B3-4); AFFECTS D3589-047 (ZN A7-3) AND D3589-048 (ZN A3-3); REVISED D3589-15: 0.140 WAS 0.129 (ZN B4-7); 0.900 WAS 1.150 (ZN C4-7); ADDED D3589-23 (ZN C3-4); AFFECTS D3589-043-045 (ZN D7-2 AND D2-2); REASON: PART12-177.	MB	12.07.04
B	0.90 AND 0.63 REF WERE 1.97 AND 0.60 (ZN C6-2); 0.50 WAS 1.89 (ZN C3-2); 0.75 REF REPLACES 2.01 (ZN C2-2); 29" WAS 15" (ZN B2-2); 19.00 WAS 18.88 (ZN D4-4); REDESIGNED D3589-9 (ZN A6-0) AND D3589-11F (ZN C2-3) REASON: REDESIGN FOR PROPER FIT AND TO MATCH TESTED CONFIGURATION	MB	08.08.25
A	NEW ISSUE	MB	08.05.29
REV.	DESCRIPTION	BY	DATE
DESIGN	 DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	REV. C	
DRAWN		SHEET 1 OF 8	
CHECKED		SCALE	
MFG. APPR.		NTS	
APPROVED			
DE APPR.	LATCH ASSEMBLY		
DATE	12.07.04	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR DISCLOSED OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.	

ITEM	QTY -043	QTY -045	P/N	DESCRIPTION
	X		D3589-043	FORWARD PLATE WELDMENT
		X	D3589-045	AFT PLATE WELDMENT
1		1	D3589-7	AFT GUIDE PLATE
2	1		D3589-9	FORWARD GUIDE PLATE
3	1		D3589-11	FORWARD GUIDE PLATE
4	1	1	D3589-23	ARM GUIDE



D3589-043 FORWARD PLATE WELDMENT



D3589-045 AFT PLATE WELDMENT

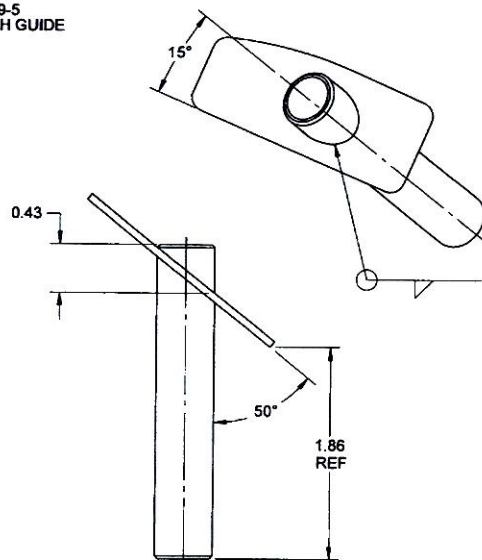
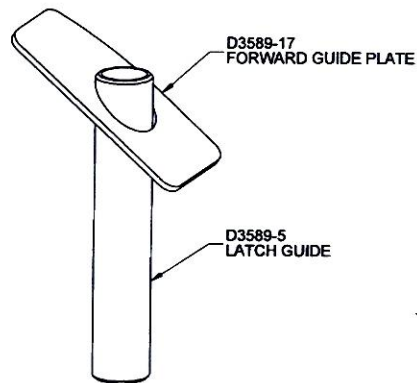
RELEASED
2012-07-16

D3589-043/-045 NOTES:

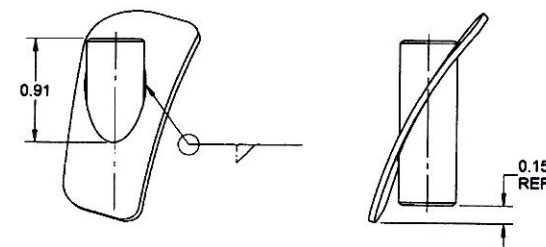
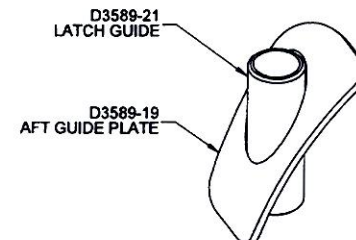
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT:
 - D3589-043 = 0.23 lbs
 - D3589-045 = 0.10 lbs
- 8) WELDING: PER DART QSI 004 USING DT9033
- 9) FORM D3589-11 TO FIT D3589-9 MATING EDGE

DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3589 TITLE LATCH ASSEMBLY SCALE NTS COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD
DRAWN		
CHECKED		
MFG. APPR.		
APPROVED		
DE APPR.		REV. C SHEET 2 OF 8
DATE	12.07.04	

ITEM	QTY -047	QTY -049	P/N	DESCRIPTION
	X		D3589-047	FORWARD GUIDE
		X	D3589-049	AFT GUIDE
1	1		D3589-5	LATCH GUIDE
2	1		D3589-17	FORWARD GUIDE PLATE
3		1	D3589-19	AFT GUIDE PLATE
4		1	D3589-21	LATCH GUIDE



△ D3589-047 FORWARD GUIDE



△ D3589-049 AFT GUIDE

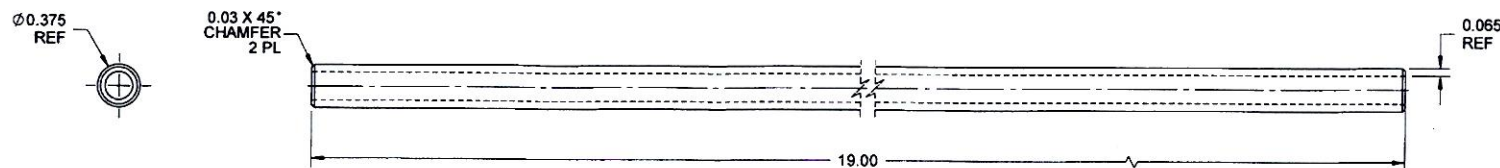
D3589-047/-049 NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT:
 - D3589-047 = 0.08 lbs
 - D3589-049 = 0.05 lbs
- 8) WELDING: PER DART QSI 004

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3589	SHEET 3 OF 8
APPROVED		TITLE	SCALE
DE APPR.		LATCH ASSEMBLY	NTS
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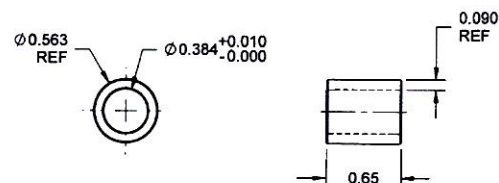
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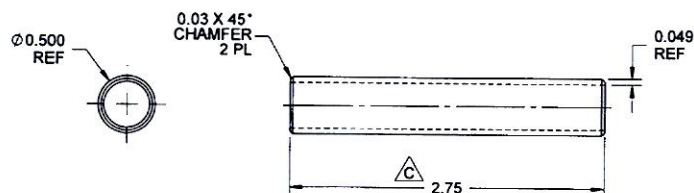
D3589-1 ARM



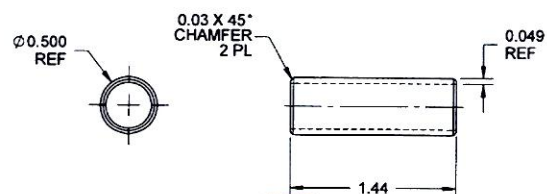
D3589-3 ARM GUIDE



D3589-23 ARM GUIDE



D3589-5 LATCH GUIDE



D3589-21 LATCH GUIDE

D3589-1/-3/-5/-21/-23 NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SEAMLESS ROUND TUBING
 D3589-1: 0.375 O.D. X 0.065 WALL (REF. DART SPEC M304TR0.375W.065)
 D3589-3: 0.500 O.D. X 0.058 WALL (REF. DART SPEC M304TR0.500W.058)
 D3589-5/-21: 0.500 O.D. X 0.049 WALL (REF. DART SPEC M304TR0.500W.049)
 D3589-23: AISI 304/316 STAINLESS STEEL ROUND BAR PER ASTM A276 (REF. DART SPEC M304R)

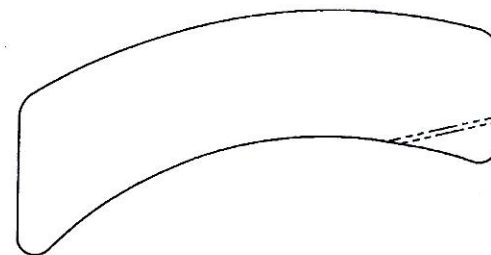
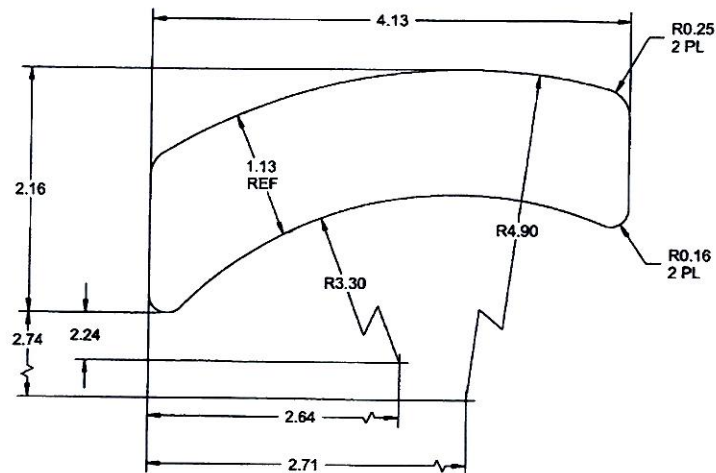
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: - D3589-1 = 0.34 lbs
 - D3589-3 = 0.01 lbs
 - D3589-5 = 0.06 lbs
 - D3589-21 = 0.03 lbs
 - D3589-23 = 0.02 lbs

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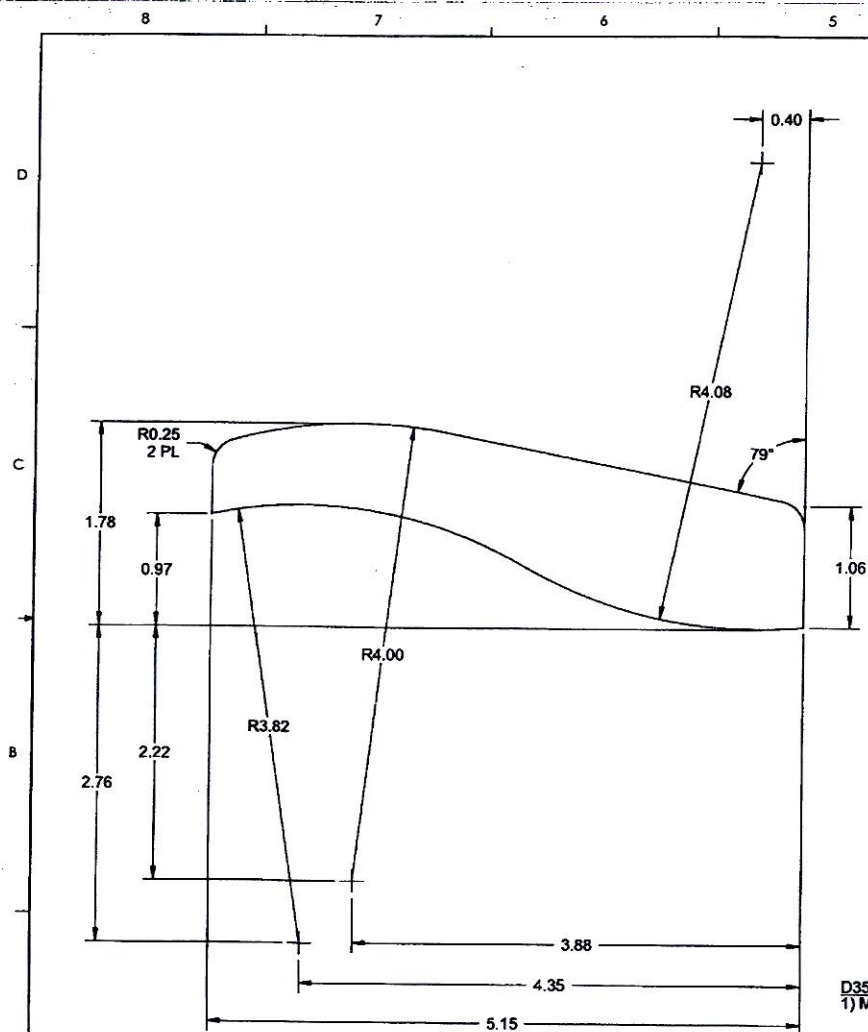
D3589-7 AFT GUIDE PLATE
MAKE FROM D3589-7F

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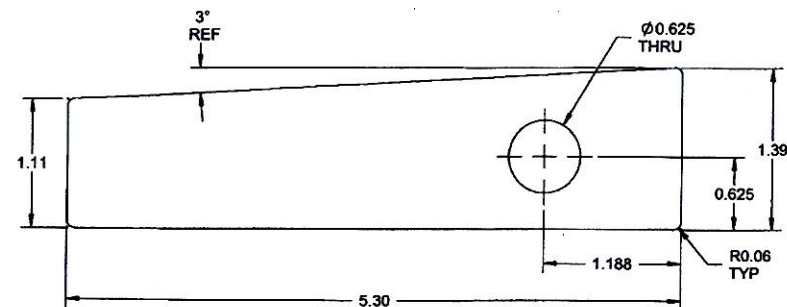
D3589-7F NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, PER AMS 5513 OR AMS 5524, OR MIL-S-5059 (ANNEALED) 2B FINISH
16 GAUGE (0.063 THICK), (REF. DART SPEC M304S16GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.09 lbs

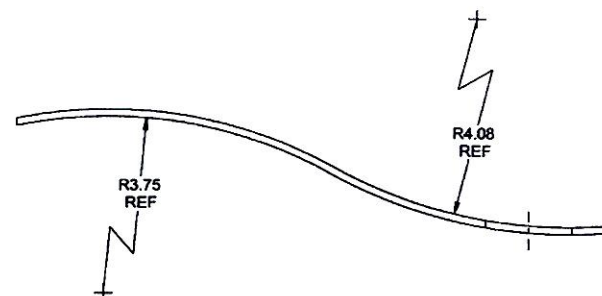
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D3589-9 FORWARD GUIDE PLATE



**D3589-11F FORWARD GUIDE PLATE
FLAT PATTERN**



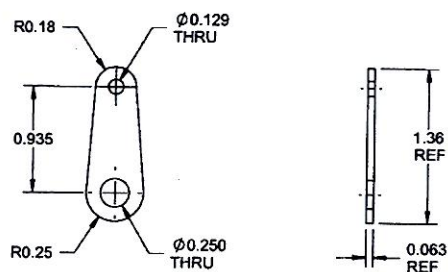
**D3589-11 FORWARD GUIDE PLATE
(MAKE FROM D3589-11F)**

D3589-9/-11/-11F NOTES:

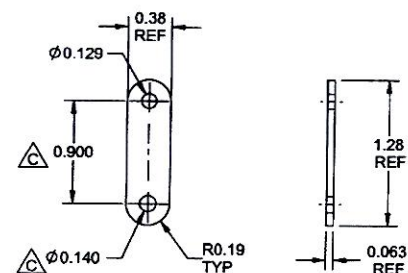
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET,
PER AMS 5513 OR AMS 5524,
OR MIL-S-5059 (ANNEALED) 2B FINISH
16 GAUGE (0.063 THICK),
(REF. DART SPEC M304S16GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS
OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.09 lbs EACH
- 8) CONTROL SHAPE PER DT9021 TEMPLATE

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D3589-13 LUG



D3589-15 LINK

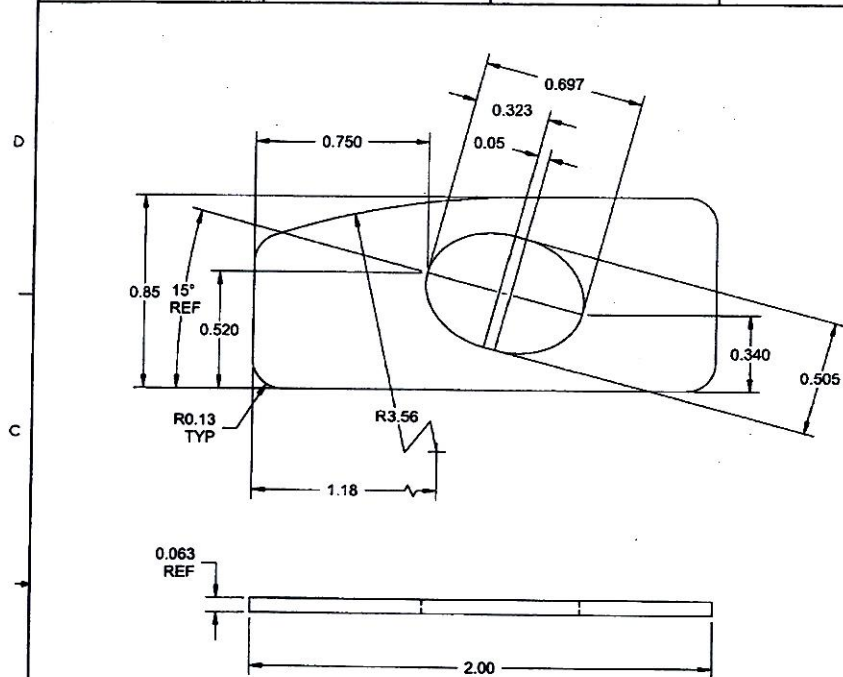
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D3589-13/15 NOTES:

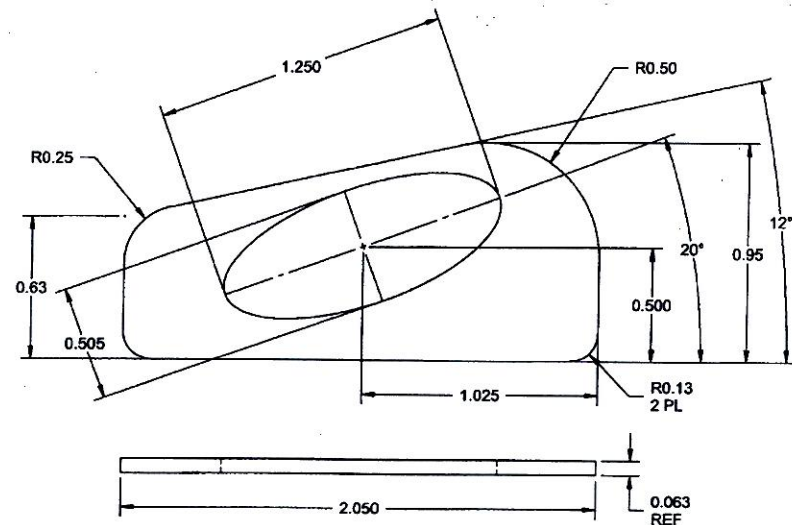
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, PER AMS 5513 OR AMS 5524, OR MIL-S-5059 (ANNEALED) 2B FINISH
16 GAUGE (0.063 THICK), (REF. DART SPEC M304S16GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.01 lbs EACH

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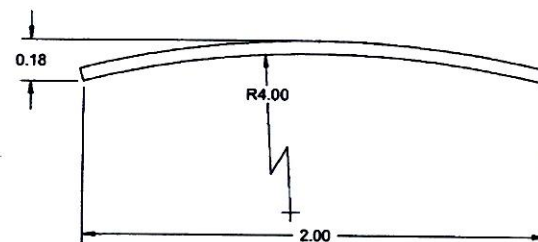
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D3589-17 FORWARD GUIDE PLATE



D3589-19F AFT GUIDE PLATE FLAT PATTERN



**D3589-19 AFT GUIDE PLATE
(MAKE FROM D3589-19F)**

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D3589-17/-19/-19F NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, PER AMS 5513 OR AMS 5524, OR MIL-S-5059 (ANNEALED) 2B FINISH 16 GAUGE (0.063 THICK), (REF. DART SPEC M304S16GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.02 lbs EACH

DESIGN		DART AEROSPACE LTD	
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8 7 6 5 4 3 2 1